FCC Test Report

Report No.: AGC01680170902FE03

FCC ID : 2AKHJ-T08

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: Bluetooth Earphone

BRAND NAME : N/A

MODEL NAME : See page 4

CLIENT: Shenzhen Hangshi Technology Co., Ltd.

DATE OF ISSUE : Jun. 19, 2017

STANDARD(S)

TEST PROCEDURE(S) : FCC Part 15 Subpart C Section 15.249

REPORT VERSION : V1.0

Attestation of Globa Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jun. 19, 2017	Valid	Initial release

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1. VERIFICATION OF CONFORMITY

Applicant	Shenzhen Hangshi Technology Co., Ltd.	
Address	Hangshi Technology Park, Democracy West, Industry Area, Shajing Town, Bao'an Distric, Shenzhen, China	
Manufacturer	Shenzhen Hangshi Technology Co., Ltd.	
Address	Hangshi Technology Park, Democracy West, Industry Area, Shajing Town, Bao'an Distric, Shenzhen, China	
Product Designation	Bluetooth Earphone	
Brand Name N/A		
Test Model	Т08	
Series Model	T06, T11, T12, T45, T55, T65/T65S, T66, T66S, T99, T99P, S01, S02, S03, S11, S88, S88P, S99, S99P, M02, M05, M06, M08, M09, M19, M26, M52, M52S, M55, M55S, M56, M56S, M58, M58S, M59, M59S, M82, M82S, M85, M85S, M88, M88S, M89, M89S, M99, P07, P09, EZ5000, B201	
Difference description		
Date of test Jun. 14, 2017 to Jun. 16, 2017		
Deviation	None	
Condition of Test Sample	Normal	
Report Template	AGCRT-US-BR/RF	

We hereby certify that:

The above equipment was tested by Dongguan Precise Testing Service Co., Ltd. The test data, the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.249.

Tested By	pong lu	
	Berg Lu(Lu Bing)	Jun. 16, 2017
Reviewed By	Forest ce	
	Forrest Lei(Lei Yonggang)	Jun. 19, 2017
Approved By	Solya Zhong	
·	Solger Zhang(Zhang Hongyi) Authorized Officer	Jun. 19, 2017

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz	
RF Output Power(for right earphone)	3.94dBm(Max EIRP Power=Max radiation field-95.2)	
RF Output Power(for left earphone)	3.85dBm(Max EIRP Power=Max radiation field-95.2)	
Bluetooth Version	V4.2	
Modulation	GFSK, π /4-DQPSK, 8DPSK	
Number of channels	79	
Hardware Version	V07	
Software Version	V07	
Antenna Designation	Ceramic Antenna	
Antenna Gain	2.1dBi	
Power Supply	DC 3.7V by battery	

Note:

- 1. The EUT didn't support BLE.
- 2. The EUT comprises left and right channel earphone, they are different in PCB layout, components placement and hardware version. Both have been tested and only the worst test data recorded in the test report.

2.2. TABLE OF CARRIER FREQUENCYS

BR/EDR Channel List

Frequency Band	Channel Number	Frequency		
	0	2402MHz		
	1	2403MHz		
	:	:		
	38	2440 MHz		
2400~2483.5MHz	39	2441 MHz		
	40	2442 MHz		
	:	:		
	77	2479 MHz		
	78	2480 MHz		

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3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

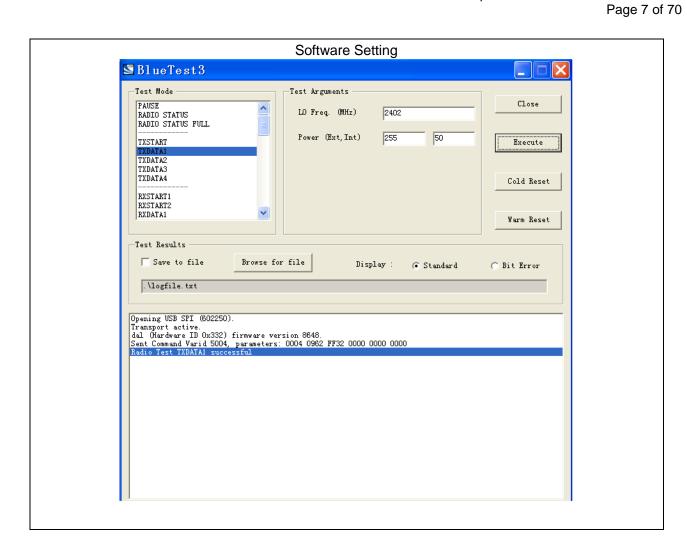
No.	Item	Uncertainty
1	Conducted Emission Test	±3.18dB
2	All emissions, radiated	±3.91dB
3	Temperature	±0.5°C
4	Humidity	±2%

4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Low channel TX(GFSK)
2	Middle channel TX (GFSK)
3	High channel TX (GFSK)
4	Low channel TX(π/4-DQPSK)
5	Middle channel TX(π/4-DQPSK)
6	High channel TX (π/4-DQPSK)
7	Low channel TX(8DPSK)
8	Middle channel TX (8DPSK)
9	High channel TX (8DPSK)
10	BT Link with charging
11	BT Link

Note:

- 1. All the test modes can be supply by battery, only the result of the worst case was recorded in the report, if no other cases.
- 2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
- 3. The EUT used fully-charged battery when tested.

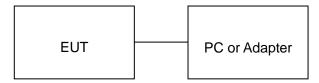


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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1: (Normal hopping)



Note: Owing to the EUT has own battery, Testing will be performed while PC or adapter remove.

Configure 2: (Control continuous TX)



5.2. EQUIPMENT USED IN EUT SYSTEM

ITEM	EQUIPMENT	MFR/BRAND	MODEL/TYPE NO.	REMARK
1	Bluetooth Earphone	Hangshi	T08	EUT
2	Battery	VDL	10120	Accessory
3	PC	Sony	E1412AYCW	A.E
4	PC Adapter	Sony	VGP-AC19V36	A.E
5	Control box	CSR	USB_SPI_TOOLS	A.E
6	Adapter	IPRO	NTR-S01	A.E
7	USB Cable	N/A	1.0m Unshielded	A.E

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249(a) §15.209	Radiated Emission	Compliant
§15.249(d)	Band Edges	Compliant
§15.207	Conduction Emission	Compliant
§15.215	Bandwidth Complia	

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6. TEST FACILITY

Site Dongguan Precise Testing Service Co., Ltd.	
Location Building D,Baoding Technology Park,Guangming Road2,Dongcheng District, Dongguan, Guangdong, China,	
FCC Registration No.	371540
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2014.

7. TEST METHOD

All measurements contained in this report were conducted with ANSI C63.10-2013

8. ALL TEST EQUIPMENT LIST

FOR RADIATED EMISSION TEST (BELOW 1GHz)

Radiated Emission Test Site							
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration		
EMI Test Receiver	ROHDE & SCHWARZBECK	ESCI	101417	July 4, 2016	July 3, 2017		
Trilog Broadband Antenna (25M-1GHz)	SCHWARZBECK	VULB9160	9160-3355	July 4, 2016	July 3, 2017		
Signal Amplifier	SCHWARZBECK	BBV 9475	9745-0013	July 4, 2016	July 3, 2017		
RF Cable	SCHWARZBECK	AK9515E	96221	July 4, 2016	July 3, 2017		
MULTI-DEVICE Positioning Controller	MAX-FULL	MF-7802	MF780208339	N/A	N/A		
Active loop antenna (9K-30MHz)	SCHWARZBECK	FMZB1519	1519-038	June 6, 2017	June 5, 2018		
Spectrum analyzer	AGILENT	E4407B	MY46185649	June 6, 2017	June 5, 2018		
Radiation Cable 1	MXT	RS1	R005	June 6, 2017	June 5, 2018		
Radiation Cable 2	MXT	RS1	R006	June 6, 2017	June 5, 2018		
temporary antenna connector	N/A	S100		July 4, 2016	July 3, 2017		

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FOR RADIATED EMISSION TEST (1GHz ABOVE)

	Radiat	ted Emission Tes	t Site		
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI Test Receiver	ROHDE & SCHWARZBECK	ESCI	101417	July 4, 2016	July 3, 2017
Horn Antenna (1G-18GHz)	SCHWARZBECK	BBHA9120D	9120D-1246	July 11, 2016	July 10, 2017
Spectrum Analyzer	AGILENT	E4411B	MY4511453	July 4, 2016	July 3, 2017
Signal Amplifier	SCHWARZBECK	BBV 9718	9718-269	July 7, 2016	July 6, 2017
RF Cable	SCHWARZBECK	AK9515H	96220	July 8, 2016	July 7, 2017
MULTI-DEVICE Positioning Controller	MAX-FULL	MF-7802	MF780208339	N/A	N/A
Horn Ant (18G-40GHz)	SCHWARZBECK	BBHA 9170	9170-181	June 6, 2017	June 5, 2018
Radiation Cable 1	MXT	RS1	R005	June 6, 2017	June 5, 2018
Radiation Cable 2	MXT	RS1	R006	June 6, 2017	June 5, 2018

	Conducted Emission Test Site											
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration							
EMI Test Receiver	ROHDE & SCHWARZBECK	ESCI	101417	July 4, 2016	July 3, 2017							
Artificial Mains Network	NARDA	L2-16B	000WX31025	July 8, 2016	July 7, 2017							
Artificial Mains Network (AUX)	NARDA	L2-16B	000WX31026	July 8, 2016	July 7, 2017							
RF Cable	SCHWARZBECK	AK9515E	96222	July 4, 2016	July 3, 2017							
Shielded Room	CHENGYU	843	PTS-002	June 6, 2017	June 5, 2018							
Conduction Cable	MXT	SE1	S003	June 6, 2017	June 5, 2018							

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9. RADIATED EMISSION

9.1TEST LIMIT

Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental	Field Strength of Harmonics			
	(millivolts/meter)	(microvolts/meter)			
900-928MHz	50	500			
2400-2483.5MHz	50	500			
5725-5875MHz	50	500			
24.0-24.25GHz	250	2500			

Standard FCC 15.209

Frequency	Distance	Field Strer	ngths Limit		
(MHz)	Meters	μ V/m	dB(μV)/m		
0.009 ~ 0.490	300	2400/F(kHz)			
0.490 ~ 1.705	30	24000/F(kHz)			
1.705 ~ 30 30		30			
30 ~ 88	3	100	40.0		
88 ~ 216	3	150	43.5		
216 ~ 960	3	200	46.0		
960 ~ 1000 3		500	54.0		
Above 1000	3	Other:74.0 dB(µV)/m (Peak)			
		54.0 dB(µV)/m (Ave	rage)		

Remark:

- (1) Emission level dB μ V = 20 log Emission level μ V/m
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

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9.2. MEASUREMENT PROCEDURE

1. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Below 1GHz)

- 2. The measuring distance of 3m shall used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Above 1GHz)
- 3. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization Of the antenna are set to make the measurement.
- 4. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- 5. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform(Below 1GHz)
- 6. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak & AVG limits and then only Peak mode was measured, but AVG mode didn't perform.(Above 1GHz)

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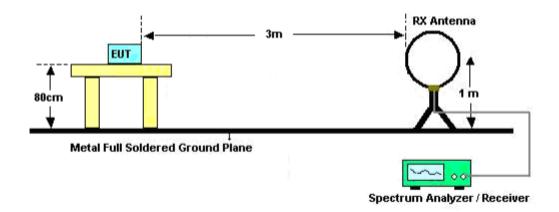
The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting					
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP					
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP					
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP					
Start ~Stop Frequency	1GHz~26.5GHz RBW 2MHz/VBW 6MHz for Peak, RBW 1.5MHz/10Hz for Average					
Receiver Parameter	Setting					
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP					
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP					
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP					

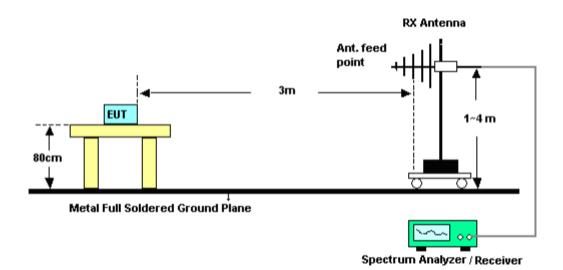
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9.3. TEST SETUP

RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



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RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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9.4. TEST RESULT

(Worst modulation:GFSK)

FOR BR/EDR

RADIATED EMISSION BELOW 30MHz

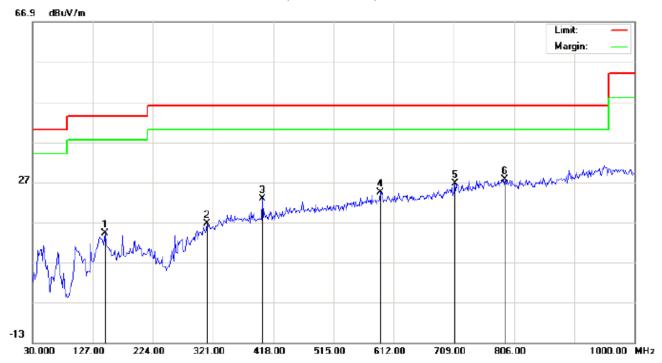
No emission found between lowest internal used/generated frequencies to 30MHz.

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For Right Earphone

RADIATED EMISSION BELOW 1GHz

RADIATED EMISSION TEST- (30MHz-1GHz)-LOW CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: Low Channel TX

Note:

Polarization: Horizontal Temperature: 22.4
Power: Humidity: 52.5 %

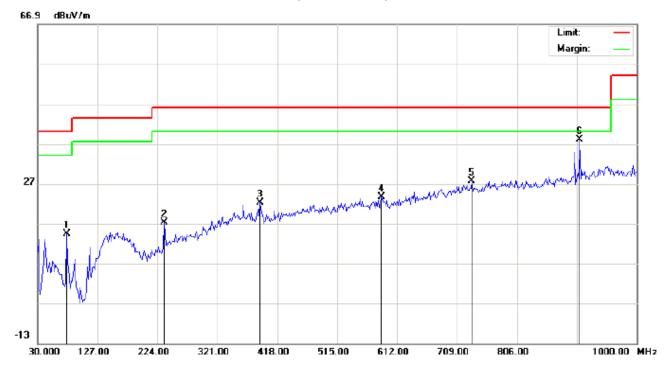
Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	//m dBu√/m dB	c	cm	degree]	
1		146.4000	0.53	13.64	14.17	43.50	-29.33	peak			
2		311.3000	0.46	16.16	16.62	46.00	-29.38	peak			
3		400.2167	3.71	19.08	22.79	46.00	-23.21	peak			
4		590.9833	0.95	23.50	24.45	46.00	-21.55	peak			
5		710.6167	1.01	25.50	26.51	46.00	-19.49	peak			
6	*	791.4500	0.32	27.20	27.52	46.00	-18.48	peak			

Temperature: 22.4 Humidity: 52.5 %

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RADIATED EMISSION TEST- (30MHz-1GHz)-LOW CHANNEL -VERTICAL



Polarization: Vertical

Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		76.8833	11.93	2.57	14.50	40.00	-25.50	peak			
2		235.3167	4.74	12.46	17.20	46.00	-28.80	peak			
3		390.5167	3.23	19.01	22.24	46.00	-23.76	peak			
4		586.1333	0.87	22.66	23.53	46.00	-22.47	peak			
5		733.2500	1.38	26.15	27.53	46.00	-18.47	peak		·	
6	*	907.8500	9.23	28.83	38.06	46.00	-7.94	peak			

Power:

Distance:

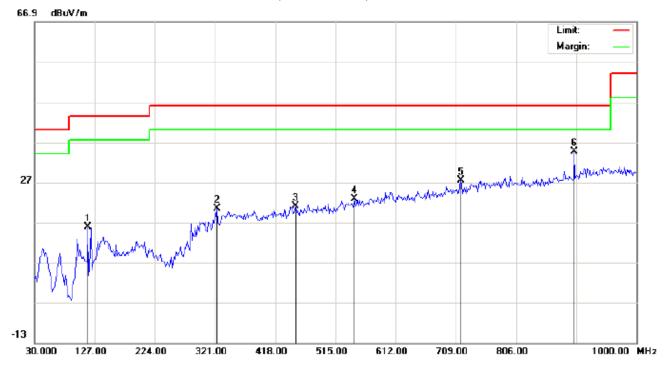
RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

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RADIATED EMISSION TEST- (30MHz-1GHz)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: Middle Channel TX

Note:

Polarization:	Horizontal	Temperatu	ıre: 22.4
Power:		Humidity:	52.5 %

Distance:

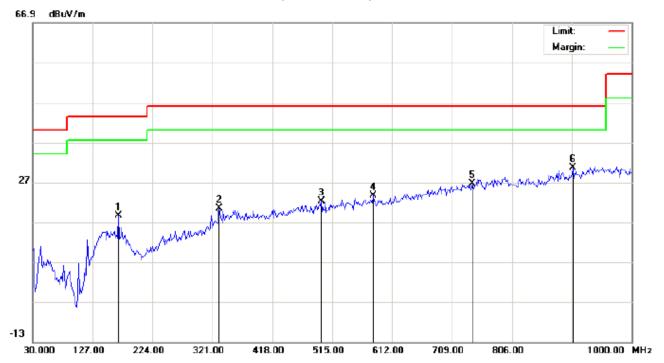
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		115.6833	8.99	6.86	15.85	43.50	-27.65	peak			
2		324.2333	3.42	17.02	20.44	46.00	-25.56	peak			
3		450.3333	0.35	20.59	20.94	46.00	-25.06	peak			
4		545.7167	0.40	22.36	22.76	46.00	-23.24	peak			
5		717.0833	1.79	25.68	27.47	46.00	-18.53	peak			
6	*	899.7667	6.07	28.60	34.67	46.00	-11.33	peak			

Temperature: 22.4

Humidity: 52.5 %

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RADIATED EMISSION TEST- (30MHz-1GHz)-MIDDLE CHANNEL -VERTICAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		169.0333	3.89	14.76	18.65	43.50	-24.85	peak			
2		332.3167	2.86	17.56	20.42	46.00	-25.58	peak			
3		497.2167	1.13	21.10	22.23	46.00	-23.77	peak			
4		581.2833	0.90	22.64	23.54	46.00	-22.46	peak			
5		741.3333	0.18	26.38	26.56	46.00	-19.44	peak			
6	*	904.6167	1.85	28.74	30.59	46.00	-15.41	peak			

Polarization:

Power:

Distance:

Vertical

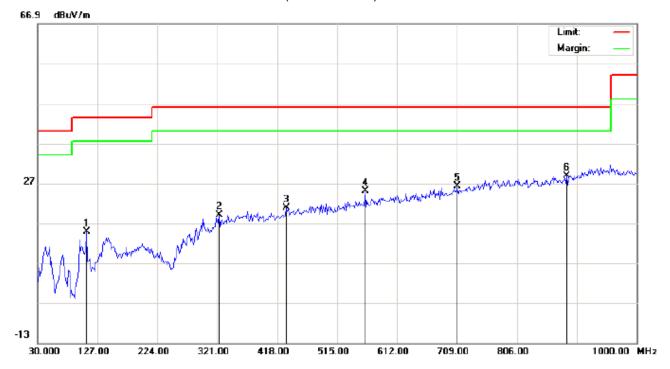
RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

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RADIATED EMISSION TEST- (30MHz-1GHz)-HIGH CHANNEL-HORIZONTAL



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: High Channel TX

Note:

Polarization:	Horizontal	Temperatu	re: 22.4
Power:		Humidity:	52.5 %

Distance:

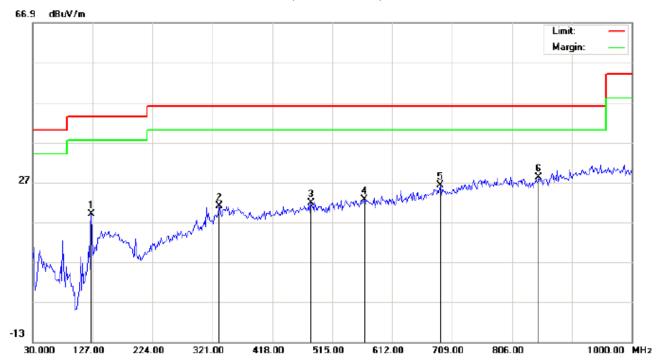
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		109.2167	6.50	8.35	14.85	43.50	-28.65	peak			
2		324.2333	2.04	17.02	19.06	46.00	-26.94	peak			
3		432.5500	0.78	20.06	20.84	46.00	-25.16	peak			
4		560.2667	2.36	22.74	25.10	46.00	-20.90	peak			
5		709.0000	0.85	25.45	26.30	46.00	-19.70	peak	·		
6	*	886.8333	0.44	28.27	28.71	46.00	-17.29	peak			

Temperature: 22.4

Humidity: 52.5 %

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RADIATED EMISSION TEST- (30MHz-1GHz)-HIGH CHANNEL -VERTICAL



Polarization: Vertical

Site: site #1 Limit: FCC Class B 3M Radiation

EUT: Bluetooth Earphone

M/N: T08

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu√/m	dBu∀/m	dB		cm	degree	
1		125.3833	9.92	9.10	19.02	43.50	-24.48	peak			
2		332.3167	3.53	17.56	21.09	46.00	-24.91	peak			
3		481.0500	0.89	20.93	21.82	46.00	-24.18	peak			
4		566.7333	0.08	22.56	22.64	46.00	-23.36	peak			
5		689.6000	1.31	24.91	26.22	46.00	-19.78	peak			
6	*	849.6500	0.93	27.31	28.24	46.00	-17.76	peak			

Power:

Distance:

RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

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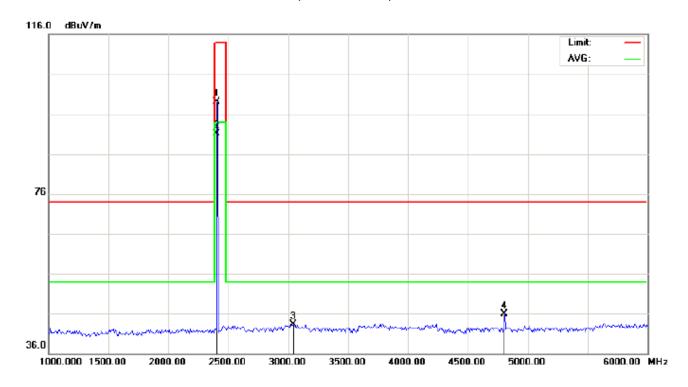
For Right Earphone

RADIATED EMISSION ABOVE 1GHz

(Worst modulation: GFSK)

FOR BR/EDR

RADIATED EMISSION TEST- (ABOVE 1GHz)-LOW CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 22.7

Distance:

Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

M/N: T08

Mode: Low Channel TX

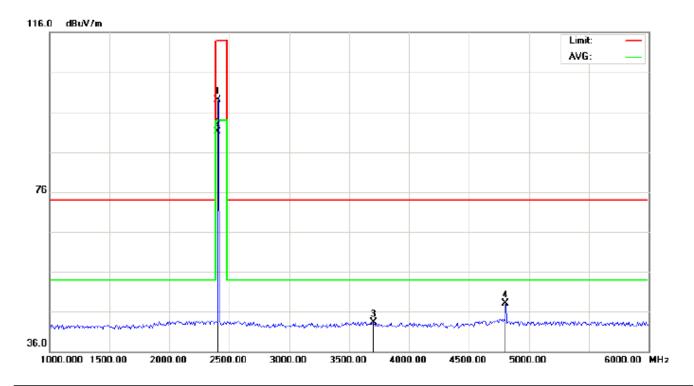
EUT: Bluetooth Earphone

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2402.000	88.71	10.32	99.03	114.00	-14.97	peak			
2	*	2402.000	80.69	10.32	91.01	94.00	-2.99	AVG	100	76	
3		3041.667	31.66	11.68	43.34	74.00	-30.66	peak			
4		4804.000	38.24	7.69	45.93	74.00	-28.07	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-LOW CHANNEL- VERTICAL



Site: site #1 Limit: FCC Class B 3M Radiation above 1GHz(PK)-

Temperature: 22.7 Polarization: Vertical Power:

Humidity: 53.6 %

EUT: Bluetooth Earphone

M/N: T08

Mode: Low Channel TX

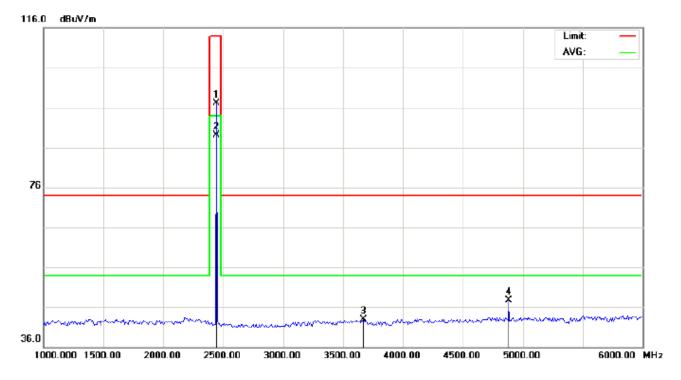
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2402.000	88.82	10.32	99.14	114.00	-14.86	peak			
2	*	2402.000	80.77	10.32	91.09	94.00	-2.91	AVG	100	246	
3		3700.000	30.00	13.34	43.34	74.00	-30.66	peak			
4		4804.000	40.38	7.69	48.07	74.00	-25.93	peak			

Distance:

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RADIATED EMISSION TEST- (ABOVE 1GHz)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1

Polarization: Horizontal Power:

Temperature: 22.7

Limit: FCC Class B 3M Radiation above 1GHz(PK)-

Humidity: 53.6 %

EUT: Bluetooth Earphone

Distance:

M/N: T08

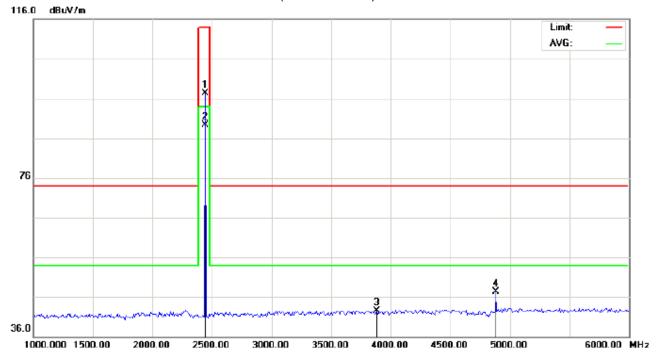
Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2441.000	86.74	10.36	97.10	114.00	-16.90	peak			
2	*	2441.000	78.71	10.36	89.07	94.00	-4.93	AVG	100	81	
3		3666.667	29.73	13.14	42.87	74.00	-31.13	peak			
4		4882.000	39.88	7.89	47.77	74.00	-26.23	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-MIDDLE CHANNEL- VERTICAL



Site: site #1 Polarization: Vertical Temperature: 22.7
Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

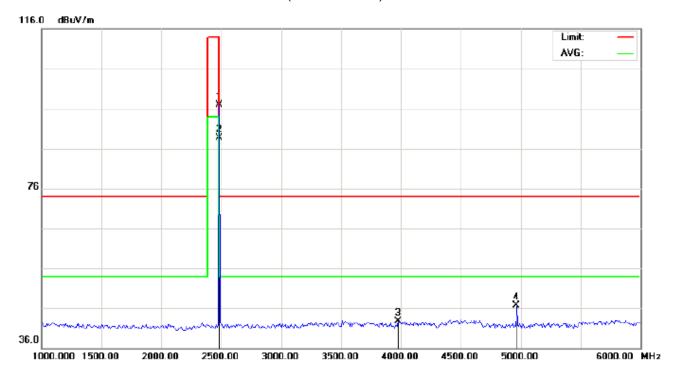
Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2441.000	86.99	10.36	97.35	114.00	-16.65	peak			
2	*	2441.000	78.93	10.36	89.29	94.00	-4.71	AVG	100	257	
3		3883.333	28.11	14.47	42.58	74.00	-31.42	peak			
4		4882.000	39.31	7.89	47.20	74.00	-26.80	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-HIGH CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 22.7

Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

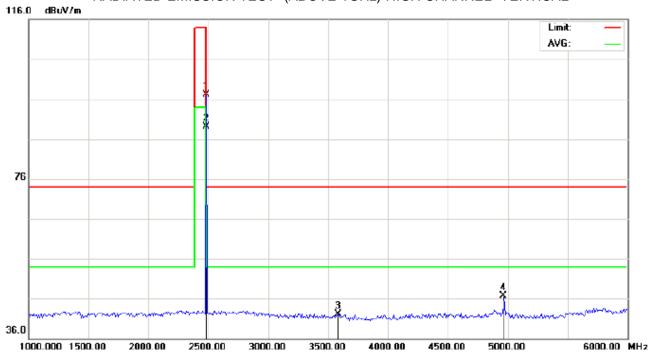
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2480.000	86.47	10.41	96.88	114.00	-17.12	peak			
2	*	2480.000	78.35	10.41	88.76	94.00	-5.24	AVG	100	89	
3		3975.000	27.75	15.04	42.79	74.00	-31.21	peak			
4		4960.000	38.51	8.09	46.60	74.00	-27.40	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-HIGH CHANNEL- VERTICAL



Site: site #1 Polarization: Vertical Temperature: 22.7
Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2480.000	86.70	10.41	97.11	114.00	-16.91	peak			
2	*	2480.000	78.62	10.41	89.03	94.00	-4.97	AVG	100	265	
3		3583.333	29.47	12.62	42.09	74.00	-31.91	peak			
4		4960.000	38.66	8.09	46.75	74.00	-27.25	peak			

RESULT: PASS

Note: 6~25GHz at least have 20dB margin. No recording in the test report.

Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

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Field strength of the fundamental signal

1Mbps Result:

Peak value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	88.71	10.32	99.03	114	-14.97	Horizontal
2402	88.82	10.32	99.14	114	-14.86	Vertical
2441	86.74	10.36	97.10	114	-16.90	Horizontal
2441	86.99	10.36	97.35	114	-16.65	Vertical
2480	86.47	10.41	96.88	114	-17.12	Horizontal
2480	86.70	10.41	97.11	114	-16.91	Vertical

Average value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	80.69	10.32	91.01	94	-2.99	Horizontal
2402	80.77	10.32	91.09	94	-2.91	Vertical
2441	78.71	10.36	89.07	94	-4.93	Horizontal
2441	78.93	10.36	89.29	94	-4.71	Vertical
2480	78.35	10.41	88.76	94	-5.24	Horizontal
2480	78.62	10.41	89.03	94	-4.97	Vertical

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2Mbps Result:

Peak value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	87.96	10.32	98.28	114	-15.72	Horizontal
2402	88.07	10.32	98.39	114	-15.61	Vertical
2441	85.94	10.36	96.30	114	-17.70	Horizontal
2441	86.19	10.36	96.55	114	-17.45	Vertical
2480	85.71	10.41	96.12	114	-17.88	Horizontal
2480	85.93	10.41	96.34	114	-17.66	Vertical

Average value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	79.89	10.32	90.21	94	-3.79	Horizontal
2402	79.97	10.32	90.29	94	-3.71	Vertical
2441	77.95	10.36	88.31	94	-5.69	Horizontal
2441	78.17	10.36	88.53	94	-5.47	Vertical
2480	77.57	10.41	87.98	94	-6.02	Horizontal
2480	77.84	10.41	88.25	94	-5.75	Vertical

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3Mbps Result:

Peak value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	87.61	10.32	97.93	114	-16.07	Horizontal
2402	87.29	10.32	97.61	114	-16.39	Vertical
2441	85.62	10.36	95.98	114	-18.02	Horizontal
2441	85.29	10.36	95.65	114	-18.35	Vertical
2480	85.38	10.41	95.79	114	-18.21	Horizontal
2480	85.04	10.41	95.45	114	-18.55	Vertical

Average value

Frequency	cy Reading Factor		Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	79.55	10.32	89.87	94	-4.13	Horizontal
2402	79.18	10.32	89.50	94	-4.50	Vertical
2441	77.58	10.36	87.94	94	-6.06	Horizontal
2441	77.26	10.36	87.62	94	-6.38	Vertical
2480	77.25	10.41	87.66	94	-6.34	Horizontal
2480	76.91	10.41	87.32	94	-6.68	Vertical

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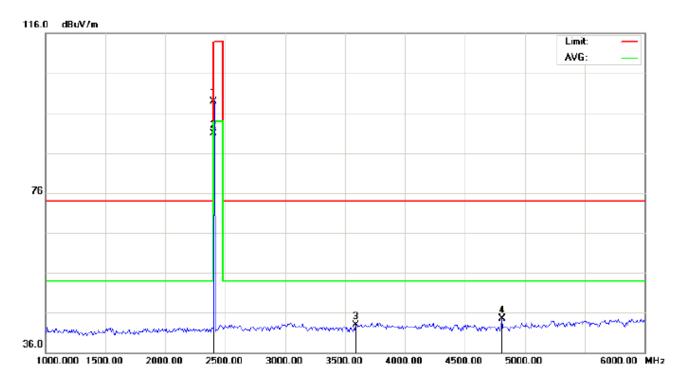
For Left Earphone

RADIATED EMISSION ABOVE 1GHz

(Worst modulation: GFSK)

FOR BR/EDR

RADIATED EMISSION TEST- (ABOVE 1GHz)-LOW CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 22.7
Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

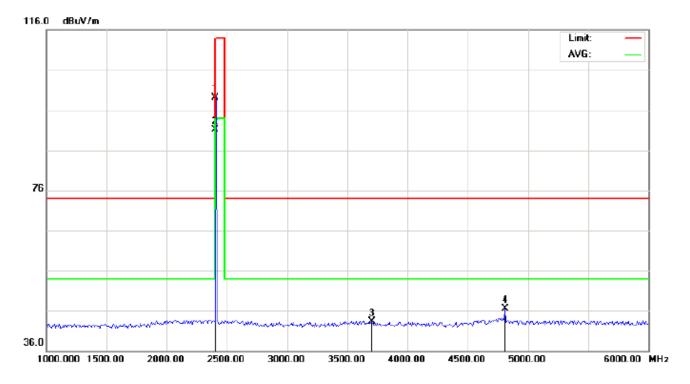
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2402.000	88.57	10.32	98.89	114.00	-15.11	peak			
2	*	2402.000	80.63	10.32	90.95	94.00	-3.05	AVG	100	85	
3		3591.667	30.20	12.67	42.87	74.00	-31.13	peak			
4		4804.000	36.73	7.70	44.43	74.00	-29.57	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-LOW CHANNEL- VERTICAL



Site: site #1 Polarization: Vertical Temperature: 22.7

Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

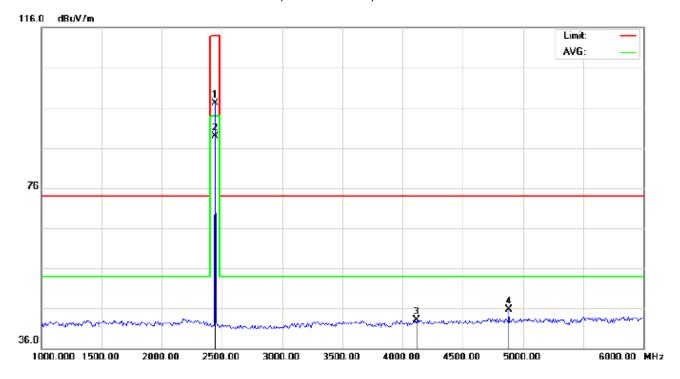
Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2402.000	88.73	10.32	99.05	114.00	-14.95	peak			
2	*	2402.000	80.71	10.32	91.03	94.00	-2.97	AVG	100	243	
3		3700.000	30.00	13.34	43.34	74.00	-30.66	peak			
4		4804.000	38.87	7.70	46.57	74.00	-27.43	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-MIDDLE CHANNEL-HORIZONTAL



Site: site #1 P
Limit: FCC Class B 3M Radiation above 1GHz(PK)- P

Polarization: *Horizontal* Power:

Temperature: 22.7 Humidity: 53.6 %

EUT: Bluetooth Earphone

Distance:

M/N: T08

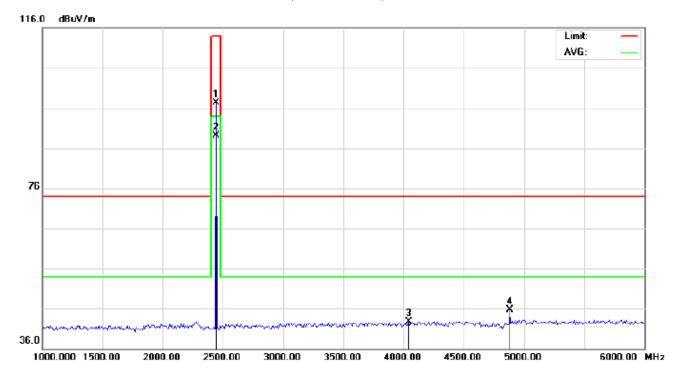
Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2441.000	86.66	10.36	97.02	114.00	-16.98	peak			
2	*	2441.000	78.59	10.36	88.95	94.00	-5.05	AVG	100	86	
3		4116.667	29.82	13.25	43.07	74.00	-30.93	peak			
4		4882.000	37.88	7.89	45.77	74.00	-28.23	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-MIDDLE CHANNEL- VERTICAL



Site: site #1 Temperature: 22.7 Polarization: Vertical Humidity: 53.6 %

Limit: FCC Class B 3M Radiation above 1GHz(PK)-Power:

EUT: Bluetooth Earphone Distance:

M/N: T08

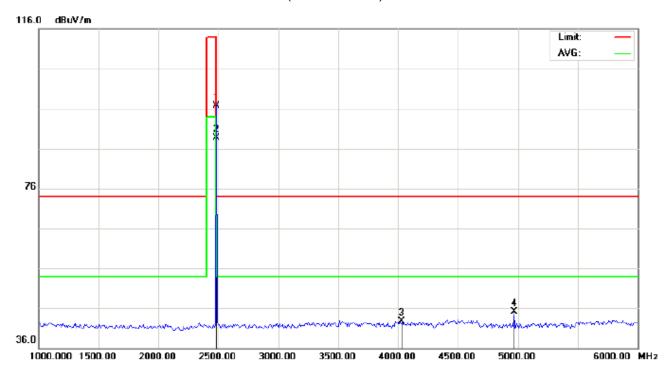
Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2441.000	86.85	10.36	97.21	114.00	-16.79	peak			
2	*	2441.000	78.80	10.36	89.16	94.00	-4.84	AVG	100	264	
3		4041.667	28.14	14.50	42.64	74.00	-31.36	peak			
4		4882.000	37.81	7.89	45.70	74.00	-28.30	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-HIGH CHANNEL-HORIZONTAL



Site: site #1 Polarization: Horizontal Temperature: 22.7

Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

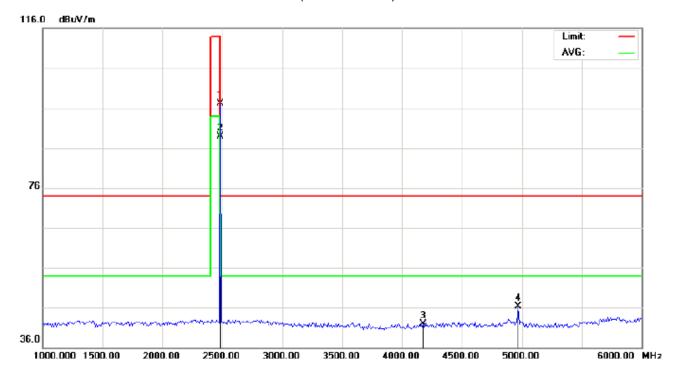
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2480.000	86.31	10.41	96.72	114.00	-17.28	peak			
2	*	2480.000	78.20	10.41	88.61	94.00	-5.39	AVG	100	93	
3		4033.333	28.02	14.64	42.66	74.00	-31.34	peak			
4		4960.000	36.99	8.11	45.10	74.00	-28.90	peak			

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RADIATED EMISSION TEST- (ABOVE 1GHz)-HIGH CHANNEL- VERTICAL



Site: site #1 Polarization: Vertical Temperature: 22.7
Limit: FCC Class B 3M Radiation above 1GHz(PK)- Power: Humidity: 53.6 %

EUT: Bluetooth Earphone Distance:

M/N: T08

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2480.000	86.61	10.41	97.02	114.00	-16.98	peak			
2	*	2480.000	78.54	10.41	88.95	94.00	-5.05	AVG	100	265	
3		4175.000	29.71	12.28	41.99	74.00	-32.01	peak			
4		4960.000	38.14	8.11	46.25	74.00	-27.75	peak			

RESULT: PASS

Note: 6~25GHz at least have 20dB margin. No recording in the test report.

Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

Report No.: AGC01680170902FE03 Page 38 of 70

Field strength of the fundamental signal

1Mbps Result:

Peak value

Frequency	Reading Level	Factor Measurement		Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	88.57	10.32	98.89	114	-15.11	Horizontal
2402	88.73	10.32	99.05	114	-14.95	Vertical
2441	86.66	10.36	97.02	114	-16.98	Horizontal
2441	86.85	10.36	97.21	114	-16.79	Vertical
2480	86.31	10.41	96.72	114	-17.28	Horizontal
2480	86.61	10.41	97.02	114	-16.98	Vertical

Average value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	80.63	10.32	90.95	94	-3.05	Horizontal
2402	80.71	10.32	91.03	94	-2.97	Vertical
2441	78.59	10.36	88.95	94	-5.05	Horizontal
2441	78.80	10.36	89.16	94	-4.84	Vertical
2480	78.20	10.41	88.61	94	-5.39	Horizontal
2480	78.54	10.41	88.95	94	-5.05	Vertical

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2Mbps Result:

Peak value

Frequency	Reading Level	Factor Measurement		Limit	Over	Antenna	
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization	
2402	87.82	10.32	98.14	114	-15.86	Horizontal	
2402	87.98	10.32	98.30	114	-15.70	Vertical	
2441	85.86	10.36	96.22	114	-17.78	Horizontal	
2441	86.05	10.36	96.41	114	-17.59	Vertical	
2480	85.55	10.41	95.96	114	-18.04	Horizontal	
2480	85.85	10.41	96.26	114	-17.74	Vertical	

Average value

Frequency	Reading Level	Factor Measurement		Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	79.83	10.32	90.15	94	-3.85	Horizontal
2402	79.91	10.32	90.23	94	-3.77	Vertical
2441	77.83	10.36	88.19	94	-5.81	Horizontal
2441	78.04	10.36	88.40	94	-5.60	Vertical
2480	77.42	10.41	87.83	94	-6.17	Horizontal
2480	77.76	10.41	88.17	94	-5.83	Vertical

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3Mbps Result:

Peak value

Frequency	Reading Level	Factor Measurement		Limit	Over	Antenna	
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization	
2402	87.47	10.32	97.79	114	-16.21	Horizontal	
2402	87.15	10.32	97.47	114	-16.53	Vertical	
2441	85.54	10.36	95.90	114	-18.10	Horizontal	
2441	85.21	10.36	95.57	114	-18.43	Vertical	
2480	85.22	10.41	95.63	114	-18.37	Horizontal	
2480	84.88	10.41	95.29	114	-18.71	Vertical	

Average value

Frequency	Reading Level	Factor Measurement		Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	79.49	10.32	89.81	94	-4.19	Horizontal
2402	79.12	10.32	89.44	94	-4.56	Vertical
2441	77.46	10.36	87.82	94	-6.18	Horizontal
2441	77.14	10.36	87.50	94	-6.50	Vertical
2480	77.10	10.41	87.51	94	-6.49	Horizontal
2480	76.76	10.41	87.17	94	-6.83	Vertical

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10. BAND EDGE EMISSION

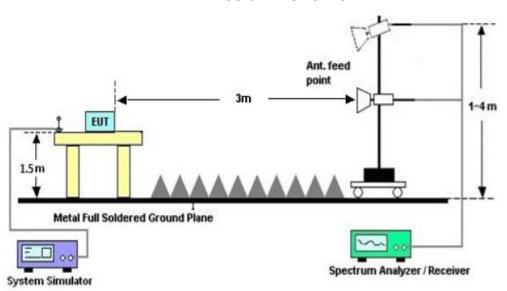
10.1. MEASUREMENT PROCEDURE

- 1. The EUT operates at hopping-off test mode. The lowest or highest channels are tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
- 2. Max hold the trace of the setup1, and the EUT operates at hopping-on test mode to verify the largest spurious emissions power.
- 3. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission.

Start frequency(MHz)	Stop frequency(MHz)
2200	2405
2478	2500

10.2 TEST SETUP

RADIATED EMISSION TEST SETUP



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10.3 RADIATED TEST RESULT

(Worst modulation: GFSK)

FOR BR/EDR

For Right Earphone

TEST PLOT OF BAND EDGE FOR LOW CHANNEL-Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHz(PK) Power: Humidity: 60 %

EUT: Bluetooth Earphone Distance:

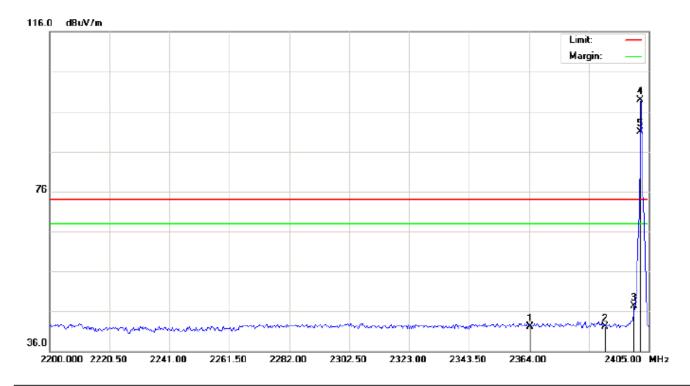
M/N: T08

Mode: Low Channel TX

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1		2369.808	31.98	10.29	42.27	74.00	-31.73	peak			
2		2390.000	33.50	10.31	43.81	74.00	-30.19	peak			
3		2400.000	42.97	10.32	53.29	74.00	-20.71	peak			
4	*	2402.000	88.72	10.32	99.04	74.00	25.04	peak			
5	Х	2402.000	80.69	10.32	91.01	74.00	17.01	AVG	100	63	

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TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHz(PK) Power: Humidity: 60 %

EUT: Bluetooth Earphone Distance:

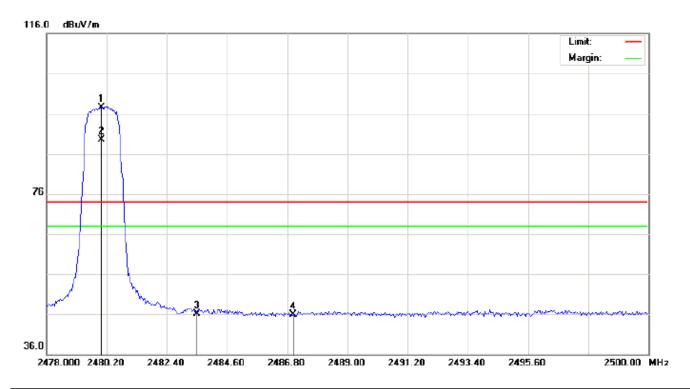
M/N: T08

Mode: Low Channel TX

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1		2364.341	31.82	10.28	42.10	74.00	-31.90	peak			
2		2390.000	31.71	10.31	42.02	74.00	-31.98	peak			
3		2400.000	37.06	10.32	47.38	74.00	-26.62	peak			
4	*	2402.000	88.59	10.32	98.91	74.00	24.91	peak			
5	Х	2402.000	80.55	10.32	90.87	74.00	16.87	AVG	100	243	

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHz(PK) Power: Humidity: 60 %

EUT: Bluetooth Earphone Distance:

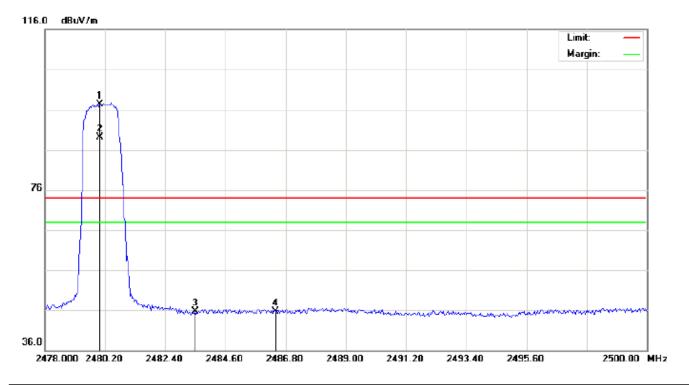
M/N: T08

Mode: High Channel TX

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2480.000	87.05	10.41	97.46	74.00	23.46	peak			
2	Х	2480.000	79.01	10.41	89.42	74.00	15.42	AVG	100	69	
3		2483.500	35.69	10.41	46.10	74.00	-27.90	peak			
4		2487.020	35.56	10.42	45.98	74.00	-28.02	peak			

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TEST PLOT OF BAND EDGE FOR HIGH CHANNEL-Vertical



Site: site #1 Polarization: Vertical Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHz(PK) Power: Humidity: 60 %

EUT: Bluetooth Earphone Distance:

M/N: T08

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2480.000	86.82	10.41	97.23	74.00	23.23	peak			
2	Х	2480.000	78.72	10.41	89.13	74.00	15.13	AVG	100	233	
3		2483.500	35.26	10.41	45.67	74.00	-28.33	peak			
4		2486.433	35.19	10.41	45.60	74.00	-28.40	peak			

RESULT: PASS

Note: Factor=Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

Hopping on mode and Hopping off mode have been tested, but only worst case reported.

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11. 20DB BANDWIDTH

11.1. MEASUREMENT PROCEDURE

- 1. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 2. Set Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hoping channel RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW; Sweep = auto; Detector function = peak
- 3. Set SPA Trace 1 Max hold, then View.

11.2. TEST SET-UP



11.3. LIMITS AND MEASUREMENT RESULTS

FOR BR/EDR (For Right Earphone)

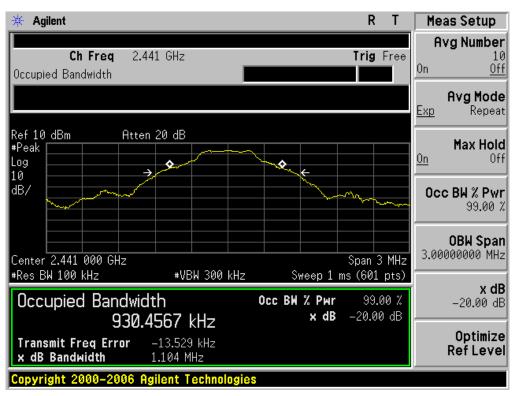
BLUETOOTH 1MBPS LIMITS AND MEASUREMENT RESULT										
	Measurement Result									
Applicable Limits		Decult								
		-20dB BW(MHz)	Result							
	Low Channel	0.941	1.110	PASS						
N/A	Middle Channel	0.930	1.104	PASS						
	High Channel	0.931	1.106	PASS						

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TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

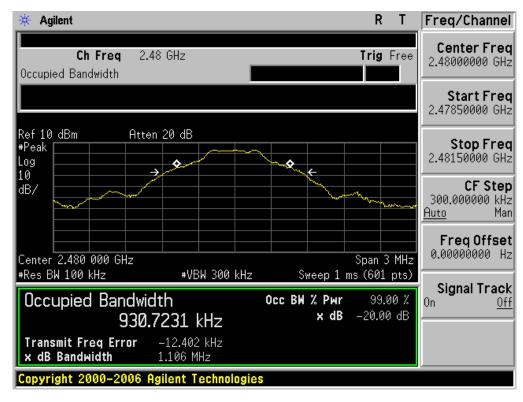


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



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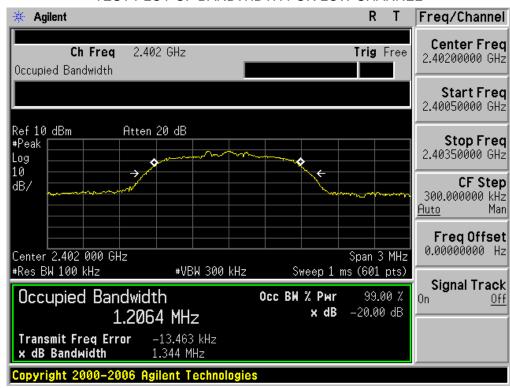
TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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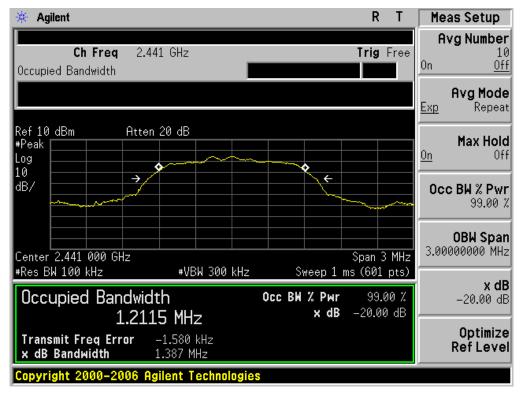
BLUETOOTH 2MBPS LIMITS AND MEASUREMENT RESULT										
	Measurement Result									
Applicable Limits		Test Data (MHz)								
		99%OBW (MHz)	-20dB BW(MHz)	Result						
	Low Channel	1.206	1.344	PASS						
N/A	Middle Channel	1.212	1.387	PASS						
	High Channel	1.208	1.364	PASS						

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

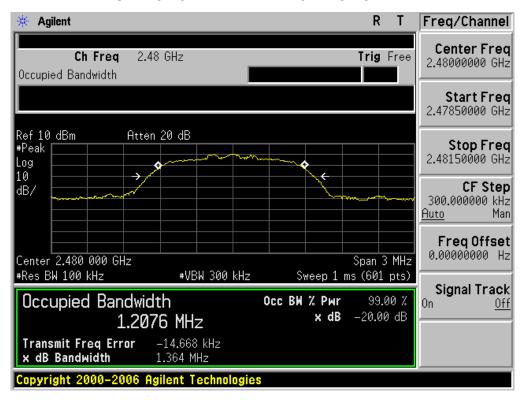


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



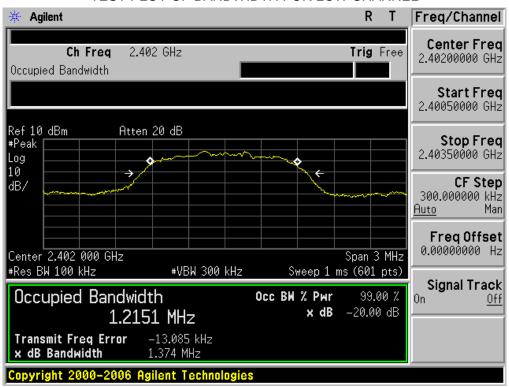
TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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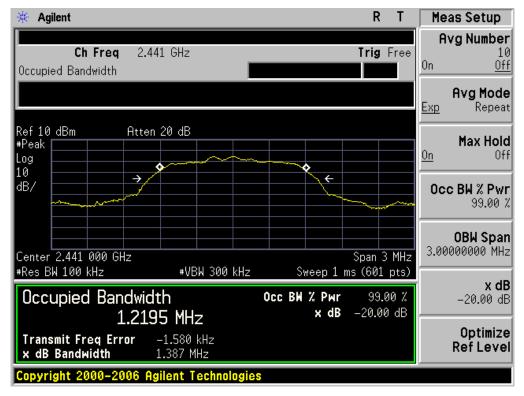
BLUETOOTH 3MBPS LIMITS AND MEASUREMENT RESULT										
	Measurement Result									
Applicable Limits		Do avilé								
		Result								
	Low Channel	1.215	1.374	PASS						
N/A	Middle Channel	1.220	1.387	PASS						
	High Channel	1.234	1.390	PASS						

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

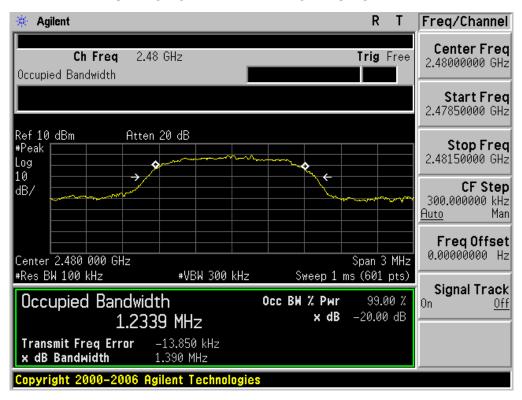


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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12. FCC LINE CONDUCTED EMISSION TEST

12.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage							
Frequency	Q.P.(dBuV)	Average(dBuV)						
150kHz~500kHz	66-56	56-46						
500kHz~5MHz	56	46						
5MHz~30MHz	60	50						

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipments received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC charging voltage by adapter which received 120V/60Hzpower by a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

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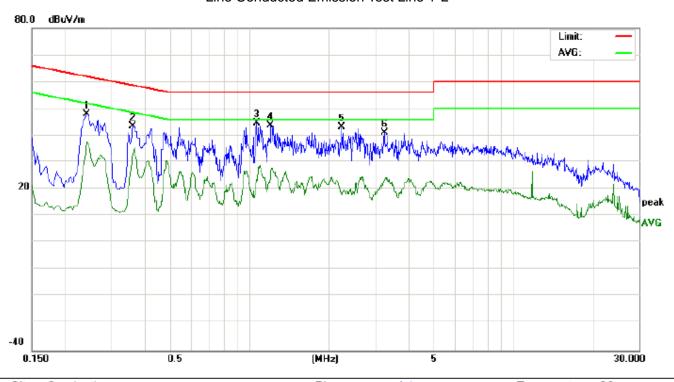
12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

By adapter(worst case)

FOR BR/EDR

For Right Earphone

Line Conducted Emission Test Line 1-L



Site: Conduction Phase: L1 Temperature: 26
Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %

EUT: Bluetooth Earphone

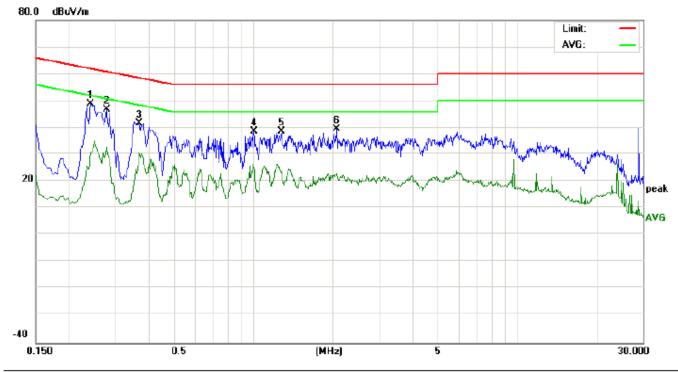
M/N: T08

Mode: BT Link with charging

No.	Freq.				Correct Factor	Measurement (dBuV/m)		Limit (dBuV/m)		Margin (dB)		P/F	Comment	
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2420	37.76		27.48	10.26	48.02		37.74	62.02	52.02	-14.00	-14.28	Р	
2	0.3620	33.23		22.72	10.31	43.54		33.03	58.68	48.68	-15.14	-15.65	Р	
3	1.0700	34.40		12.94	10.37	44.77		23.31	56.00	46.00	-11.23	-22.69	Р	
4	1.2059	33.50		16.44	10.37	43.87		26.81	56.00	46.00	-12.13	-19.19	Р	
5	2.2420	33.06		8.63	10.32	43.38		18.95	56.00	46.00	-12.62	-27.05	Р	
6	3.2540	30.74		12.48	10.53	41.27		23.01	56.00	46.00	-14.73	-22.99	Р	

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Line Conducted Emission Test Line 2-N



Site: Conduction Phase: N Temperature: 26
Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %

EUT: Bluetooth Earphone

M/N: T08

Mode: BT Link with charging

No.	Freq.	Reading_Level (dBuV/m)		Correct Factor	Measurement (dBuV/m)		Limit (dBuV/m)		Margin (dB)		P/F	Comment		
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2420	38.62		20.52	10.26	48.88		30.78	62.02	52.02	-13.14	-21.24	Р	
2	0.2779	36.50		22.12	10.28	46.78		32.40	60.88	50.88	-14.10	-18.48	Р	
3	0.3700	31.56		20.47	10.32	41.88		30.79	58.50	48.50	-16.62	-17.71	Р	
4	1.0060	28.42		14.55	10.37	38.79		24.92	56.00	46.00	-17.21	-21.08	Р	
5	1.2780	28.25		13.23	10.38	38.63		23.61	56.00	46.00	-17.37	-22.39	Р	
6	2.0700	29.47		12.60	10.25	39.72		22.85	56.00	46.00	-16.28	-23.15	Р	

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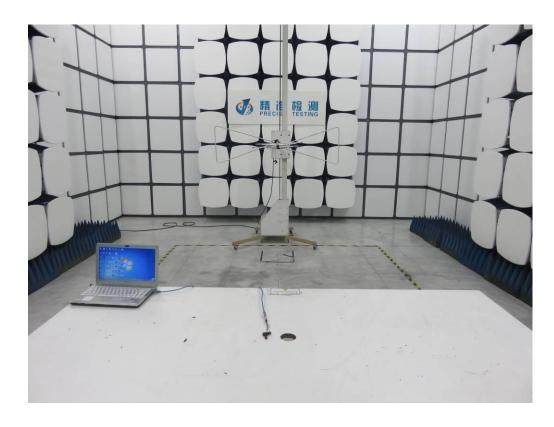
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

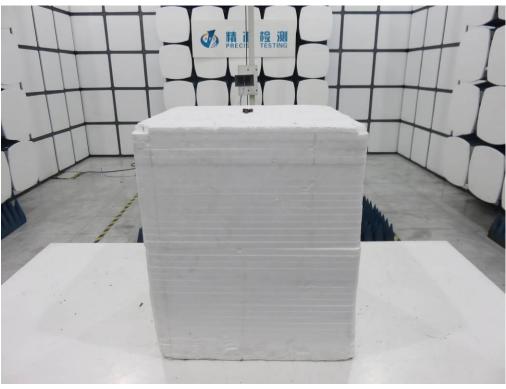
FCC LINE CONDUCTED EMISSION TEST SETUP

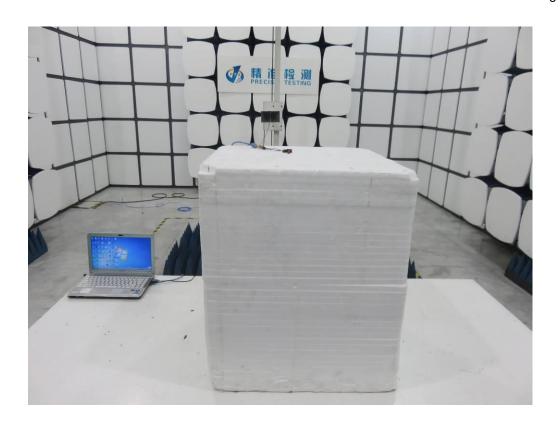


FCC RADIATED EMISSION TEST SETUP









APPENDIX B: PHOTOGRAPHS OF EUT

ALL VIEW OF EUT



TOP VIEW OF EUT



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



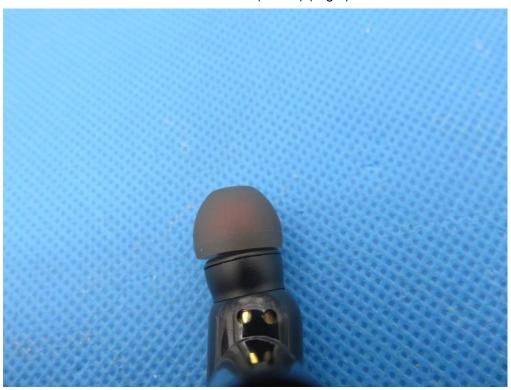
LEFT VIEW OF EUT



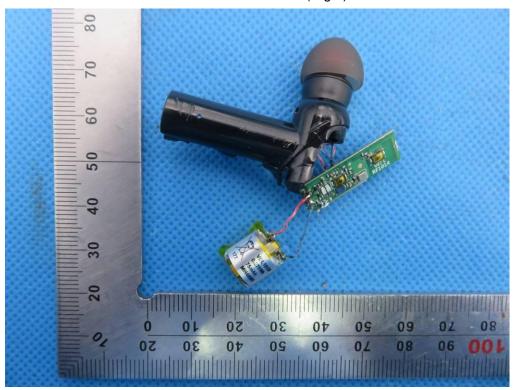
RIGHT VIEW OF EUT



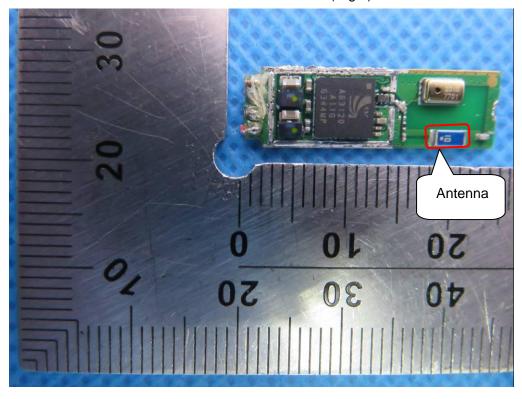
VIEW OF EUT (PORT) (Right)



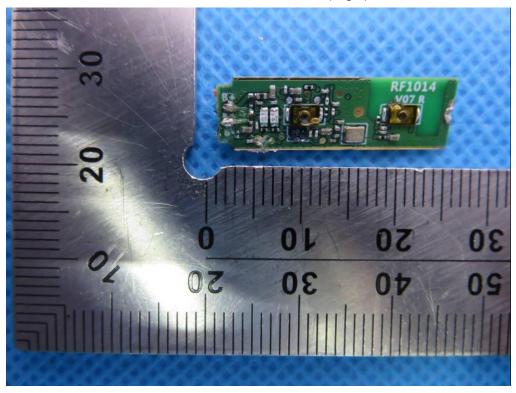
OPEN VIEW OF EUT (Right)



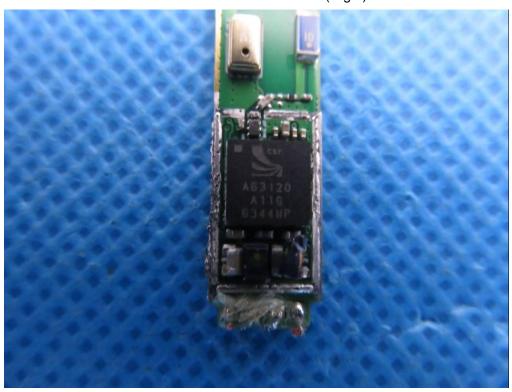
INTERNAL VIEW OF EUT-1 (Right)



INTERNAL VIEW OF EUT-2 (Right)



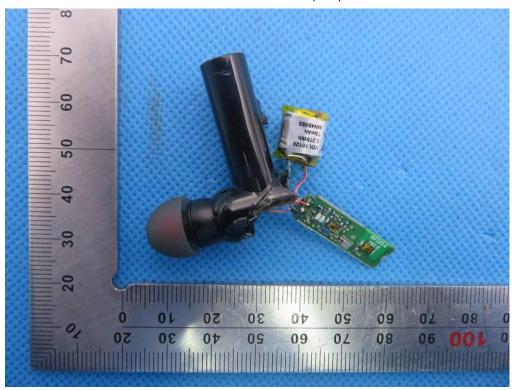
INTERNAL VIEW OF EUT-3 (Right)



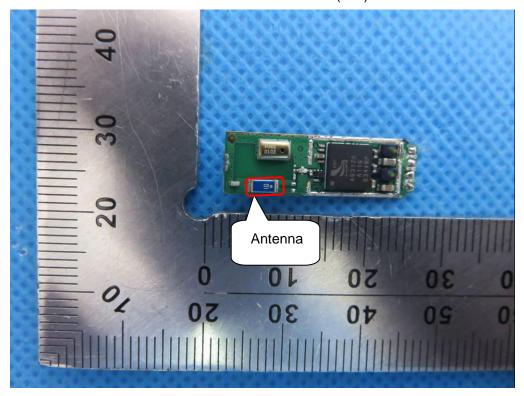
VIEW OF EUT (PORT) (Left)



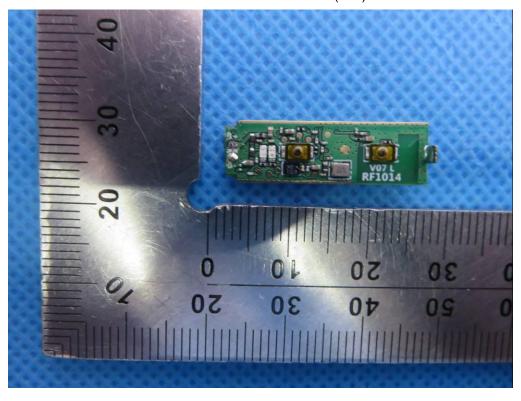
OPEN VIEW OF EUT (Left)



INTERNAL VIEW OF EUT-1 (Left)



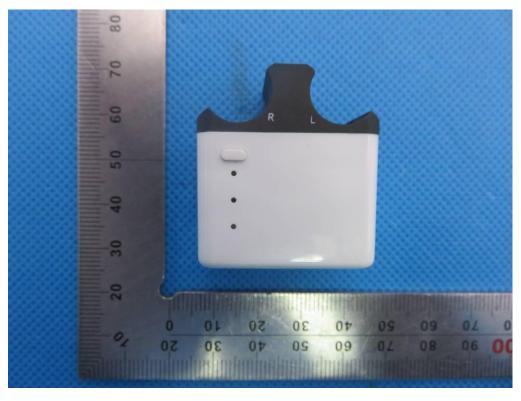
INTERNAL VIEW OF EUT-2 (Left)



INTERNAL VIEW OF EUT-3 (Left)



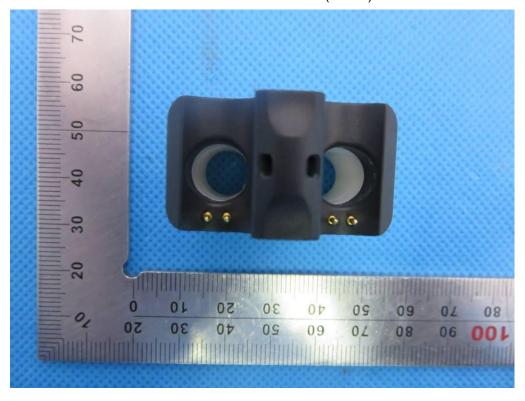
TOP VIEW OF CHARGING CASE



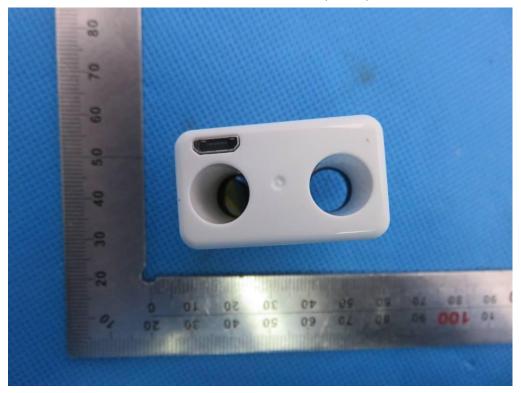
BOTTOM VIEW OF CHARGING CASE



VIEW OF CHARGING CASE (PORT)-1



VIEW OF CHARGING CASE (PORT)-2



VIEW OF ADAPTER (AE)



THE ADAPTER SUPPLIED BY AGC

----END OF REPORT----